

IN THE CLAIMS:

None of the claims are amended herein. However, the claims are reproduced below for the convenience of the Examiner.

1. (Previously Presented) An optical transmission apparatus with an optical add/drop function used in an optical wavelength multiplex network, comprising:
an optical branching coupler for dividing an input wavelength multiplexed optical signal into a wavelength multiplexed optical signal, which is called a passing signal, and another wavelength multiplexed optical signal, which is called a dropping signal;
a variable wavelength filter for extracting a first optical signal at a predetermined wavelength from the dropping signal that is branched by the optical branching coupler;
a fixed wavelength laser for generating a second optical signal that is to be inserted, the second optical signal having one of a plurality of preset wavelengths; and
a rejection/add filter for blocking a third optical signal having one of a plurality of preset wavelengths contained in the passing signal that is branched by the optical branching coupler, inserting the second signal, and coupling the passing signal that passes the rejection/add filter with the second optical signal, the wavelength of the blocked third optical signal being the same as the wavelength of the inserted second optical signal.

2. (Cancelled)

3. (Previously Presented) An optical transmission apparatus with an optical add/drop function used in an optical wavelength multiplex network, comprising:
an optical branching coupler for dividing an input wavelength multiplexed optical signal into a wavelength multiplexed optical signal, which is called a passing signal, and another wavelength multiplexed optical signal, which is called a dropping signal;
a fixed wavelength filter for extracting a first optical signal at a predetermined wavelength from the dropping signal that is branched by the optical branching coupler;
a variable wavelength laser for generating a second optical signal that is to be inserted, the second optical signal having one of a plurality of preset wavelengths; and
a rejection/add filter for blocking a third optical signal having one of a plurality of preset wavelengths contained in the passing signal that is branched by the optical branching coupler, inserting the second signal, and coupling the passing signal that passes the rejection/add filter

with the second optical signal, the wavelength of the blocked third optical signal being the same as the wavelength of the inserted second optical signal.

4. (Cancelled)

5. (Previously Presented) The optical transmission apparatus as claimed in claim 1, wherein

the wavelength of the second optical signal generated by the fixed wavelength laser is discriminately preset for the optical transmission apparatus such that the preset wavelength of the second optical signal for the optical transmission apparatus is arranged to be different from a wavelength of a corresponding insertion signal for another optical transmission apparatus that is associated with the optical transmission apparatus, and the predetermined wavelength of the first optical signal extracted by the variable wavelength filter is set for the optical transmission apparatus irrespective of a wavelength of a corresponding signal to be extracted by the other optical transmission apparatus.

6. (Previously Presented) The optical transmission apparatus as claimed in claim 3, wherein

the wavelength of the second optical signal generated by the variable wavelength laser is discriminately preset for the optical transmission apparatus such that the preset wavelength of the second optical signal for the optical transmission apparatus is arranged to be different from a wavelength of a corresponding insertion signal for another optical transmission apparatus that is associated with the optical transmission apparatus, and the predetermined wavelength of the first optical signal extracted by the fixed wavelength filter is set for the optical transmission apparatus irrespective of a wavelength of a corresponding signal to be extracted by the other optical transmission apparatus.

7. (Previously Presented) The optical transmission apparatus as claimed in claim 1, wherein the variable wavelength filter is one of an AOTF, a dielectric multilayer filter, an FGB type filter, and a Fabry-Perot type filter.

8. (Original) The optical transmission apparatus as claimed in claim 1, further comprising a protection unit that comprises an optical coupler and an optical switch.

9. (Previously Presented) An optical wavelength multiplex network, comprising:
the optical transmission apparatus as claimed in claim 1; and
a double optical loop network that comprises a HUB and two optical loops, wherein the two loops are configured to transmit signals in opposite directions with respect to each other.

10. (Original) The optical wavelength multiplex network as claimed in claim 9, wherein said HUB comprises an optical demultiplexer, an optical coupler, an optical switch, and an optical multiplexer.

11. (Original) The optical wavelength multiplex network as claimed in claim 9, wherein said HUB comprises an optical filter.

12. (Original) The optical wavelength multiplex network as claimed in claim 9, wherein said HUB comprises an optical demultiplexer, a MEMS, and an optical multiplexer.

13. (Original) The optical wavelength multiplex network as claimed in claim 9, wherein said HUB comprises a protection unit that comprises an optical coupler and an optical switch.

14. (Previously Presented) An optical wavelength multiplex network, comprising:
the optical transmission apparatus as claimed in claim 3; and
a double optical loop network that comprises a HUB and two optical loops, wherein the two loops are configured to transmit signals in opposite directions with respect to each other.

15. (Previously Presented) The optical transmission apparatus as claimed in claim 3, further comprising a protection unit that comprises an optical coupler and an optical switch.

16. (Previously Presented) The optical transmission apparatus of claim 1, wherein the optical wavelength multiplex network is one of a loop-like network, a mesh type network, and a network where a loop-like and mesh type network are intermingled.